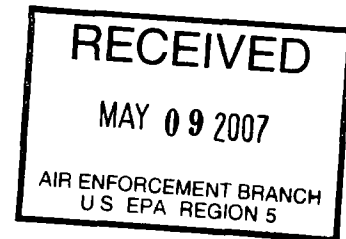


April 27, 2007



United States Environmental Protection Agency (AR-17J)  
Air & Radiation Division  
77 West Jackson Blvd.  
Chicago, IL 60604

RE: 2006 Annual Compliance Certification  
Ester Solutions CAAPP# 96010056

To Whom It May Concern:

Enclosed is the 2006 Annual Compliance Certification for Ester Solutions located at 5851 W. 73<sup>rd</sup> Street in Bedford Park, IL.

If you have any questions, please contact me at 312-554-7422.

Sincerely,  
THE HALLSTAR COMPANY



April A. Cesaretti  
Regulatory Affairs Manager

Enclosure



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF AIR POLLUTION CONTROL  
COMPLIANCE AND SYSTEMS MANAGEMENT SECTION  
1021 NORTH GRAND AVENUE EAST, P O BOX 19276  
SPRINGFIELD, ILLINOIS 62794-9276

RECEIVED

MAY 09 2007

AIR ENFORCEMENT BRANCH  
U S EPA REGION 5

CAAPP ANNUAL  
COMPLIANCE CERTIFICATION

FOR AGENCY USE ONLY

ID NUMBER

PERMIT #

DATE

THE CLEAN AIR ACT PERMIT PROGRAM (CAAPP) REQUIRES THAT EACH CAAPP PERMIT HOLDER SUBMIT AN ANNUAL COMPLIANCE CERTIFICATION FOR ALL EMISSION UNITS AT THE SOURCE AS REQUIRED BY 40 CFR 70.6 (c) (5), 39.5 (7) (p) (v) OF THE ENVIRONMENTAL PROTECTION ACT AND CAAPP PERMIT CONDITION 9.8. THE COMPLIANCE CERTIFICATION REPORTING PERIOD IS JANUARY 1 TO DECEMBER 31 AND IS DUE ON OR BEFORE MAY 1 FOR THE PRECEDING CALENDAR YEAR. THIS CERTIFICATION FORM CAN BE USED BY FACILITIES TO SATISFY THIS REQUIREMENT.

SOURCE INFORMATION

1) SOURCE NAME

Ester Solutions

2) SOURCE ADDRESS

5851 W. 73rd Street

3) CITY

Bedford Park

4) COUNTY

Cook

5) TOWNSHIP

6) STATE

IL

7) ZIP CODE

60499

8) DATE FORM PREPARED

April 30, 2007

9) SOURCE ID NO

031821 ABE

10) CAAPP PERMIT NO

96-010056

11) CALENDAR YEAR OR REPORTING PERIOD COVERED BY THIS REPORT

2006

SOURCE COMPLIANCE INFORMATION

12) CHECK EITHER (a) OR (b) BELOW

(a) ☒ During the entire reporting period, this source was in **continuous** compliance with ALL terms and conditions contained in its CAAPP permit. The method used to determine compliance for each term and condition is the method specified in the permit.

(b) ☐ With the exception of the items identified in Table 1 and Table 2, this source was in **continuous** compliance with all terms and conditions contained in the permit. The method used to determine compliance for each term and condition is the method specified in the permit, unless otherwise indicated.

**NOTE:** Table 1 must be completed for all units and activities regardless of compliance status. Table 2 must be completed for all sources of intermittent or continuous noncompliance with any permit condition.

**ATTACHMENTS**

13) Are you submitting any attachments with this report?

Yes ☒No ☐

If yes, please list the attachments below

TABLE 1 + 2

**COMPLIANCE CERTIFICATION REPORT MAILING**

14) In addition to submitting the Compliance Certification report to the Compliance and Systems Management Section (CASM), a copy of the Compliance Certification report must also be submitted to the USEPA Region 5 and the appropriate IEPA regional field office. Addresses are listed in condition 8.6 of your CAAPP permit.

**Please check the appropriate boxes.**

A copy of the Compliance Certification report has been submitted to USEPA.

Yes ☒No ☐

A copy of the Compliance Certification report has been submitted to the appropriate IEPA regional field office

Yes ☒No ☐**SOURCE CONTACT PERSON**

15) NAME OF TECHNICAL CONTACT PERSON FOR THIS REPORT

APRIL A. CESARETTI

16) TECHNICAL CONTACT PERSON TITLE

Regulatory Affairs Manager

17) CONTACT PERSON'S TELEPHONE NUMBER

312 554-7422

**COMPLIANCE STATEMENT AND SIGNATURE BLOCK**

NOTE: A RESPONSIBLE OFFICIAL MUST SIGN THIS COMPLIANCE CERTIFICATION. UNSIGNED COMPLIANCE CERTIFICATIONS WILL BE RETURNED AS INCOMPLETE.

18) I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

AUTHORIZED SIGNATURE

BY



AUTHORIZED SIGNATURE

Jeff Jaworek

TYPED OR PRINTED NAME OF SIGNATORY

Director, Supply &amp; Operations

TITLE OF SIGNATORY

April 30, 2007

DATE

**Table 1. Listing of Compliance Status for Applicable Permit Terms and Conditions**

2006 Annual Compliance Certification

Source Name: Ester Solutions

ID # 031821ABE

NOTE This table presents the Title V conditions, as well as certain construction permit conditions for a catalytic oxidizer (Jan - Nov ) and thermal oxidizer (Nov - Dec ), which have not yet been formally incorporated into the Title V

Permit Condition Reference (All references are to the Title V permit unless otherwise identified)	Description of Permit Condition	Compliance Status	Method Used to Determine Compliance Status
<b>Overall Source Conditions</b>			
5 2 2	- No fugitive particulate emissions that are visible at the property line should be emitted	C	Visual Inspection
5 2 3	- Operating program for Particulate Matter should be developed for the site	C	Program developed and in place
5 2 4	- Refrigeration units must follow the requirements under 40 CFR 82	C	Review of records
5 4	- Cannot use chromium based water treatment chemicals in the process cooling towers	C	Review with maintenance personnel and documents confirming the absence of chromium
5 5	- Permitted emissions is as follows NOx = 8 257 tpy PM = 27 534 tpy SO2 = 0 024 tpy VOM = 249 950 tpy	C	Calculate emissions on a monthly (where required) or annual basis
5 6 5	- All records must be kept for at least 5 years from the date of entry and be kept at the source location	C	Audit of records to ensure five year requirement is met
5 6	- Keep records of total emissions on calendar year basis for all pieces of equipment in Section 7 notification that chromium based cooling tower water chemicals have not/should not be used dimensions of each storage vessel analysis of the capacity of each storage vessel (35IAC218 129 (f) - section 5 6 5 of permit)	C	Review of records
<b>Reactor Trains</b>			
7 1 3 ( c ) (ii)	- Source shall reduce uncontrolled VOM emissions from such batch process train by an overall efficiency, on average, of at least 90 percent per batch cycle	C	See note (1) below
<b>Wastewater Treatment Operations</b>			
7 2 6	- ET-1 ET-2, HT-1, HT-2 must not exceed 4,000 hours/year and 1 76 lbs/hr and 3 52 tons/year of emissions	C	Review of records
7 2 9	- Keep records of operating schedule monthly emissions annual emissions	C	Review of records
7 2 12	- Emissions should be calculated using emission factor of 0 837 lbs VOM emitted/hr	C <sup>(1)</sup>	Review of records
<b>Adipic Acid Bulk Handling</b>			
7 3 5	- The baghouse must follow good operating practices periodic inspection, routine maintenance, prompt repair of defects	C	Review of records Discuss with Maintenance Manager
7 3 6	- Annual emission limits, of 37 96 tons/year, shall be determined on a monthly basis from the sum of the current month plus the preceding 11 months	C	Review of records
7 3 9	- Keep records of throughput of adipic acid (ton/mo. ton/yr) monthly PM emissions annual PM emissions periodic inspection of baghouse prompt repair of baghouse defects	C	Review of records Discuss with Maintenance Manager
7 3 12	- Emissions should be calculated in the following manner (Adipic Acid Throughput, ton) x (0 1 lb/ton Emission Factor) = Acid Handling Emissions (lbs)	C	Review of records

**Table 1. Listing of Compliance Status for Applicable Permit Terms and Conditions**

2006 Annual Compliance Certification

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ID #: 031821ABE

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Permit Condition Reference (All references are to the Title V permit unless otherwise identified)	Description of Permit Condition	Compliance Status	Method Used to Determine Compliance Status
<b>S/T 71, 72, 73</b>			
7 5 5	- Can only be used for blending, drumming and storage of Plasticizer and Butanol	C	Review of records Knowledge of Plant Personnel
7 5 9	- Keep records of identification of material stored within throughput (gal/mo, gal/yr) operating schedule of the blending/drumming operation of the tanks annual VOM emissions dimensions of the tanks analysis of the capacity of the tanks	C	
7 5 12	- Emissions should be calculated using the most current version of the TANKS program	C	Review of records
<b>Warehouse and Local Drumming Station</b>			
7 6 9	- Keep records of throughput (lb/mo, ton/yr) operating schedule for each drumming station monthly VOM emissions annual VOM emissions	C	Review of records
7 6 12	- Emissions should be calculated in the following manner (Amount of Material Drummed, lb) x (0.25 lb VOM Emitted/12,000 lb Drummed) = VOM (lb) emissions	C	Review of records
<b>Tankwagon Loading/Unloading</b>			
7 7 10	- Keep records of throughput of plasticizer (lb/mo, ton/yr) throughput of MeOH (lb/mo, ton/yr) # of tankwagon loads of methanol operating schedule of the loading/unloading operations monthly VOM emissions annual VOM emissions	C	Review of records
7 7 12	- Emissions should be calculated as described in the Title V Permit - see Permit	C	Review of records
<b>S/T 01, 02, 08, 23, 25, 26, 27, 28, 31, 32, 33, 76, 77</b>			
7 8 5	- Can only store 1,3 & 1,4 - Butylene Glycol Acids, Normal/Iso C6 - C22 Alcohols, Normal/Iso C6-C18 Dimethyl Ester Epoxidized Soybean Oil Ethylene Glycol Glycerine Glycols C2-C8 Glycol Ethers Glycol Ether Esters Methyl Esters Plasticizers	C	Review of records

**Table 1. Listing of Compliance Status for Applicable Permit Terms and Conditions**

2006 Annual Compliance Certification

Source Name Ester Solutions

ID #: 031821ABE

NOTE This table presents the Title V conditions, as well as certain construction permit conditions for a catalytic oxidizer (Jan - Nov ) and thermal oxidizer (Nov - Dec ), which have not yet been formally incorporated into the Title V

Permit Condition Reference (All references are to the Title V permit unless otherwise identified)	Description of Permit Condition	Compliance Status	Method Used to Determine Compliance Status
	Plasticizer and Water Surfactants and Nonionic Surfactants Wastewater		
7 8 6	- S/T 23 must not emit more than 0.1 lb/hr and 0.44 ton/yr - S/T 23 annual emissions must be determined monthly and a sum of the current month plus the preceding 11 months	C	Review of records
7 8 9	- Keep records of throughput (gal/mo, gal/yr) identification of material stored annual VOM emissions dimensions of the tanks analysis of the capacity of the tanks	C	Review of records
7 8 12	- Emissions should be calculated using the most current version of the TANKS program	C	Review of records
<b>Tanks S/T 04, 05, 07, 10, 12, 17, 18, 20, 22, 41, 43, 44, 55, 56</b>			
7 9 5	- Can only store 1,3 & 1,4 - Butylene Glycol Acids, Normal/Iso, C6 - C22 Alcohols, Normal/Iso C6-C18 Dimethyl Ester Epoxidized Soybean Oil Ethylene Glycol Glycerine Glycols C2-C8 Glycol Ethers Glycol Ether Esters Methyl Esters Plasticizers Plasticizer and Water Surfactants and Nonionic Surfactants Wastewater	C	Review of records
7 9 9	- Keep records of dimensions of the tanks analysis of the capacity of the tanks identification of the material stored throughput (gal/mo, gal/yr) annual VOM emissions	C	Review of records
7 9 12	- Emissions should be calculated using the most current version of the TANKS program	C	Review of records
<b>Tanks S/T 19, 21, 57, 58</b>			
7 10 5	- Can only store 1,3 & 1,4 - Butylene Glycol Acids, Normal/Iso, C6 - C22 Alcohols, Normal/Iso, C6-C18 Dimethyl Ester Epoxidized Soybean Oil Ethylene Glycol	C	Review of records

**Table 1. Listing of Compliance Status for Applicable Permit Terms and Conditions**

2006 Annual Compliance Certification

Source Name Ester Solutions

ID # 031821ABE

NOTE This table presents the Title V conditions, as well as certain construction permit conditions for a catalytic oxidizer (Jan - Nov ) and thermal oxidizer (Nov - Dec ), which have not yet been formally incorporated into the Title V

Permit Condition Reference (All references are to the Title V permit unless otherwise identified)	Description of Permit Condition	Compliance Status	Method Used to Determine Compliance Status
	Glycerine Glycols C2-C8 Glycol Ethers Glycol Ether Esters Methyl Esters Plasticizers Plasticizer and Water Surfactants and Nonionic Surfactants Wastewater		
7 10 6	- S/T 57 and S/T 58 emissions must be limited to 0.1 lb/hr and 0.44 ton/yr each	C	Review of records
7 10 9	- Keep records of dimensions of the tanks analysis of the capacity of the tanks identification of material stored throughput (gal/mo, gal/yr) annual VOM emissions	C	Review of records
7 10 12	- Emissions should be calculated using the most current version of the TANKS program	C	Review of records
<b>Methanol Receivers (North and South)</b>			
7 11 3	- Must have submerged loading pipes	C	Review of records Discuss with Plant Personnel
7 11 5	- Can only be used to store Methanol	C	Review of records Discuss with Plant Personnel
7 11 9	- Keep records of dimensions of the tanks analysis of the capacity of the tanks design information showing the presence of permanent submerged loading pipes maintenance and repair conducted on loading pipe identification of material stored throughput (gal/mo, gal/yr) annual VOM emissions	C	Review of records
7 11 12	- Emissions should be calculated using the most current version of the TANKS program	C	Review of records
<b>Railcar Spots #1-4</b>			
7 12 5	- Can only store Cetyl Alcohol Epoxidized Soybean Oil Aliphatic Dibasic Ester Alcohols	C	Review of records
7 12 9	- Keep records of dimensions of the tanks analysis of the capacity of the tanks identification of material stored throughput (gal/mo, gal/yr) annual VOM emissions	C	Review of records
7 12 12	- Emissions should be calculated using the most current version of the TANKS program	C	Review of records

**Natural Gas Boilers (<10 mmBtu/hr)**

**Table 1. Listing of Compliance Status for Applicable Permit Terms and Conditions**

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Source Name Ester Solutions

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Permit Condition Reference (All references are to the Title V permit unless otherwise identified)	Description of Permit Condition	Compliance Status	Method Used to Determine Compliance Status
7 13 5	- Operate only with natural gas fuel	C	Review of records Discuss with Plant Personnel
7 13 9	- Keep records of fuel usage (Mft3/mo, Mft3/yr) monthly and annual aggregate NOx, PM, SO2 & VOM emissions	C	Review of records
7 13 12	- Emissions should be calculated using emissions factors identified in the Title V (AP-42 factors)	C	Review of records
<b>Natural Gas Boilers (&gt; 10 mmBtu/hr)</b>			
7 14 5	- Operate only with natural gas fuel	C	Review of records Discuss with Plant Personnel
7 14 9	- Keep records of fuel usage (Mft3/mo, Mft3/yr) monthly and annual aggregate NOx, PM, SO2 & VOM emissions	C	Review of records
7 14 12	- Emissions should be calculated emissions factors identified in the Title V (AP-42 factors)	C	Review of records
<b>General Permit Conditions</b>			
8 6	- For monitoring requirements identified in the permit a report is required and due Sept 1 and March 1 of every year (see permit)	C	Review of records
<b>Standard Permit Conditions</b>			
9 6	- General recordkeeping requirements maintenance records for each air pollution control equipment records for changes made that result in emissions of a regulated air pollutant, not already regulated under the permit records of all monitoring data and other records kept for a period of 5 years from the date of entry	C	Review of records
9 7	- File an annual air emissions report by May 1 of every year	C	Review of records
9 8	- Complete an annual certification that identifies each term or condition of the permit the compliance status, whether compliance was continuous or intermittent, the method used to determine compliance Due May 1	C	Review of records
<b>Regenerative Thermal Oxidizer - Construction Permit</b>			
Construction Permit 2bi	- RTO shall be operated at all times when the associated emission units are in operation except that during malfunction or breakdown of the RTO	C	Paper log of operation identifies when oxidizer/emission units are operational
Construction Permit 3a	- The RTO shall be designed to achieve 95% destruction efficiency for VOM	C	Review of Stack Test documents
Construction Permit 3b	- The RTO combustion chamber shall be preheated to a working temperature before it is used for control Temperature at which the stack test proved compliance shall be maintained during operation of the associated emission units	C	Review of electronic data
Construction Permit 3c	- Periodic maintenance must be performed on the RTO so that the RTO is kept in proper working order	C	Review of maintenance files
Construction Permit 4	- RTO shall be equipped with a continuous monitoring device	C	RTO is equipped with an electronic monitoring device
Construction Permit 5a - c	- Records must be kept	C	Records are kept in a paper log book and electronically

(1) A correction to the method that is used to calculate emissions was submitted to the IEPA on December 15, 2003 as part of the Title V renewal The emissions are calculated using the emission factor and the most recent version of the TANKS prog for the four wastewater tanks and an emission factor is used to calculate the emissions from the Wastewater Treatment Operations



<b>Table 2. Deviation Summary Report</b>
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Source Name: Ester Solutions  
ID #: 031821ABE

NOTE We are reporting malfunctions and breakdowns which are not considered violations because they are allowed in Section 4 of our construction permit  
Reporting these malfunctions and breakdowns is also consistent with the Instruction for Form 401-CAAP which states, "Deviations from permit terms and conditions that may not be considered violations because permittee is allowed to operate during malfunction. breakdown and startups pursuant to the permit, must still be reported "

Permit Condition Reference	Description of Permit Condition	Description and Cause of Deviation	Corrective Action(s) Taken to Remedy Deviation	Measure(s) Taken to Prevent Future Deviations
Construction Permit 4	Malfunction / Breakdown of Oxidizer	The thermal oxidizer has shut down due to malfunctions and breakdowns a total of 33 hours and 59 minutes in 2006	Unit was restarted	Preventative maintenance is being conducted on the unit and production operations are being monitored to decrease the impact on the shutdowns